



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX

75 Hawthorne Street
San Francisco, CA 94105

In Reply Refer to WTR-5
Certified Mail # 7003 2260 0000 8859 3999
Return Receipt Requested

Mr. Neal Brown, Department Leader
Environmental Support
Arizona Public Service Company
P.O. Box 53999, Mail Station 9303
Phoenix, AZ 85072

Dear Mr. Brown:

EPA has prepared a draft National Pollutant Discharge Elimination System (NPDES) renewal permit and fact sheet for the following facility:

NPDES Permit No. NN0000019 APS Four Corners Power Plant

The draft permit and factsheet are enclosed for your review and comment. A public notice indicating the availability of the proposed draft permit and factsheet for review and comment was published on November 13, 2014 in the *Navajo Times* and the *Farmington Daily Times* newspapers. Comments received in writing on or before January 12, 2015 will be considered in the final issuance of the permit. Thank you for your attention in this matter. If I can be of further assistance, please contact me (415) 972-3516 or at the address above.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Sheth", with a horizontal line underneath.

Gary Sheth
NPDES Permits Office

Enclosure documents:
Draft NPDES Permit
Draft Fact Sheet

cc: Pamela J. Norris, APS
Tom Livingston, APS

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105**

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

NPDES PERMIT NO. NN0000019

In compliance with the provisions of the Clean Water Act ("CWA") (Public Law 92-500, as amended, 33 U.S.C. 1251 et seq.), the following discharger is authorized to discharge from the identified facility at the outfall location(s) specified below, in accordance with the effluent limits, monitoring requirements, and other conditions set forth in this permit:

Discharger Name	Arizona Public Service Company
Discharger Address	P.O. Box 53999 Phoenix, Arizona 85072-3999
Facility Name	APS Four Corners Power Plant
Facility Location Address	20 Miles SW of Farmington San Juan County, New Mexico 87416
Facility Rating	Major

Outfall Number	General Type of Waste Discharged	Outfall Latitude	Outfall Longitude	Receiving Water
001	Cooling Pond Discharge	36°42' 16.5" N	108° 29' 12" W	No-name tributary to Chaco River

This permit was issued on:	
This permit shall become effective on:	<1 st of month following 33 days after issue date>
This permit shall expire at midnight on:	<Effective date + 5 years – 1 day>

In accordance with 40 CFR 122.21(d), the discharger shall submit a new application for a permit at least 180 days before the expiration date of this permit, unless permission for a date no later than the permit expiration date has been granted by the Director.

Signed this _____ day of _____, <201#>, for the Regional Administrator.

Jane Diamond, Director
Water Division

Part I. EFFLUENT LIMITS AND MONITORING REQUIREMENTS

A. Effluent Limits and Monitoring Requirements

1. Outfall Number 001 - Cooling Pond Discharge

During the period beginning on the effective date of this permit and lasting through the date of expiration, the Permittee is authorized to discharge from Outfall No. 001

Such discharge shall be limited and monitored by the Permittee as specified below. Samples shall be collected and flow measurements taken at the point where Morgan Lake blowdown water discharge through the existing parshall flume.

Table 1. Effluent Limits and Monitoring Requirements – Outfall Number 001

Parameter	Maximum Allowable Discharge Limits			Monitoring Requirements ⁽²⁾	
	Concentration and Loading			Frequency	Sample Type
	Average Monthly	Maximum Daily	Units		
Temperature, water deg. centigrade	32.2	35	°C	Continuous	Discrete
Flow rate	(1)	14.7	MGD	Once/Week	Calculated
TDS	(2)	(2)	mg/L	Once/Month	Discrete
pH	between 6.0 to 9.0			Once/Week	Discrete
Priority Pollutant Scan				Once /In year 4 of the Permit Term	24 Hour- Composite

NOTES:

1. Report both average weekly/monthly and maximum daily flows
2. During Periods of Discharge. Total Dissolved Solids shall be determined by the "calculation method" (sum of constituents) as described in the 1979 edition of "Techniques of Water Resources Investigations of the United States Geological

survey-Methods for Determination of Inorganic Substances in Water and Fluvial Sediments,” or any subsequent editions.

2. Outfall Number 001 - Narrative Surface Water Quality Standards

Discharge from Outfall 001 shall be free from pollutants in amounts or combinations that, for any duration:

- a. Cause injury to, are toxic to, or otherwise adversely affect human health, public safety, or public welfare
- b. Cause injury to, are toxic to, or otherwise adversely affect the habitation, growth, or propagation of indigenous aquatic plant and animal communities or any member of these communities; of any desirable non-indigenous member of these communities; of waterfowl accessing the water body; or otherwise adversely affect the physical, chemical, or biological conditions on which these communities and their members depend.
- c. Settle to form bottom deposits, including sediments, precipitates and organic materials, that cause injury to, are toxic to, or otherwise adversely affect the habitation, growth, or propagation of indigenous aquatic plant and animal communities or any member of these communities; of any desirable non-indigenous member of these communities; of waterfowl accessing the water body; or otherwise adversely affect the physical, chemical, or biological conditions on which these communities and their members depend.
- d. Cause physical, chemical, or biological conditions that promote the habitation, growth, or propagation of undesirable, non-indigenous species of plant or animal life in the water body
- e. Cause solids, oil, grease, foam, scum, or any other form of objectionable floating debris on the surface of the water body; may cause a film or iridescent appearance on the surface of the water body; or may cause a deposit on a shoreline, on a bank, or on aquatic vegetation.
- f. Cause objectionable odor in the area of the water body
- g. Cause objectionable taste, odor, color, or turbidity in the water body.
- h. Cause objectionable taste in edible plant and animal life, including waterfowl, that reside in, on, or adjacent to the water body.
- i. Cause the growth of algae or aquatic plants that inhibit or prohibit the habitation, growth, or propagation of other aquatic life or that impair recreational uses.

3. Internal Outfall 01A – Condenser Cooling Water Discharge

- a. During the period beginning on the effective date of this permit and lasting through date of expiration, the Permittee is authorized to discharge from Internal Outfall 01A.

Such discharge shall be limited and monitored by the Permittee as specified below. Stormwater runoff is included in this discharge. Samples shall be

collected at the point where condenser cooling water from 4 and 5 is discharged from the circulating water canal to Morgan Lake

Table 2.1 Effluent Limits and Monitoring Requirements – Outfall Number 01A

Parameter	Maximum Allowable Discharge Limits				Monitoring Requirements	
	Concentration and Loading					
	Average Monthly	Average Weekly	Maximum Daily	Units	Frequency	Sample Type
Flow	-	-	-	MGD	Once/Week	Calculated (1)
TRC ^(2,3)	-	-	954	lbs/day	Once/Week	Discrete
	-	-	0.2	mg/L	Once/Week	Discrete
Oil & Grease	15.0		20.0	mg/L	Once/Week	Discrete
pH	between 6.0 to 9.0 std. units				Once/Week	Discrete

NOTES:

- (1) Based upon pumping records. Report both average and maximum daily flows
- (2) As defined in 40 CFR 423.11. Limits for total chlorine are set in accordance with 40 CFR 423.13(b)(1) for once through cooling water. Internal Outfall No. 01A discharge is further restricted by 40 CFR 423.13(2) in that total residual chlorine may not be discharged from any single generating unit for more than two hours per day. Simultaneous multi-unit chlorination is permitted.
- (3) Samples shall be collected during periods of chlorination. Permittee shall report both concentration and mass loading values.

b. Effluent Toxicity Testing:

Effluent toxicity shall be monitored and defined as follows. The Permittee shall only be required to conduct chronic toxicity testing if discharges from Internal Outfall No. 01A are known to occur during at least five (5) consecutive days. If there is continuous discharge from Outfall No. 01A, the Permittee shall conduct toxicity tests on 24-hour composite effluent samples on a quarterly basis. Following a year of quarterly testing, and if there is evidence that there is no reasonable potential for chronic toxicity, the Permittee may apply to EPA for a reduction in toxicity testing frequency and also request toxicity testing using the single, most sensitive species. The most sensitive species is the fish, invertebrate, or alga species which demonstrates the largest percent effect level at the In-stream Waste Concentration (IWC), where:

$$\text{IWC percent effect level} = [(\text{Control mean response} - \text{IWC mean response}) \div \text{Control mean response}] \times 100.$$

Chronic toxicity test samples shall be taken at the NPDES sampling location. A split of each sample shall also be analyzed for all other monitored parameters at the minimum frequency specified for that parameter. See Table 2.1 above

2. Freshwater Species and Test Methods

Species and short-term test methods for estimating the chronic toxicity of NPDES effluents are found in the fourth edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002; Table IA, 40 CFR 136).

The permittee shall conduct static renewal toxicity tests with the fathead minnow, *Pimephales promelas* (Larval Survival and Growth Test Method 1000.0); the daphnid, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.01); and the green alga, *Selenastrum capricornutum* (also named *Raphidocelis subcapitata*) (Growth Test Method 1003.0).

3. Chronic WET Permit Trigger

For this discharge, the determination of “Pass” or “Fail” from a single-effluent concentration chronic toxicity test at the IWC of 100 percent effluent is determined using the Test of Significant Toxicity (TST) approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010). For any one chronic toxicity test, the chronic WET permit trigger that must be achieved is rejection of the null hypothesis (H_0):

IWC (100 percent effluent) mean response $\leq 0.75 \times$ Control mean response.

A test result that rejects this null hypothesis is reported as “Pass” on the DMR form. A test result that does not reject this null hypothesis is reported as “Fail” on the DMR form. To calculate either “Pass” or “Fail”, the Permittee shall follow the instructions in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document*, Appendix A. If a test result is reported as “Fail”, then the Permittee shall follow Section 6 (Accelerated Toxicity Testing and TRE/TIE Process) of this permit.

4. Quality Assurance

- a. Quality assurance measures, instructions, and other recommendations and requirements are found in the chronic test methods manual previously referenced. Additional requirements are specified below.
- b. This discharge is subject to a determination of “Pass” or “Fail” from a single-effluent concentration chronic toxicity test at the IWC (for statistical flowchart and procedures, see *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document*, Appendix A, Figure A-1). The chronic IWC for this discharge is 100 percent effluent.

- d. If organisms are not cultured in-house, then concurrent testing with a reference toxicant shall be conducted. If organisms are cultured in-house, then monthly reference toxicant testing is sufficient. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.).
 - e. All multi-concentration reference toxicant test results must be reviewed and reported according to EPA guidance on the evaluation of concentration-response relationships found in *Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR 136)* (EPA 821-B-00-004, 2000).
 - f. If either the reference toxicant or effluent toxicity tests do not meet all test acceptability criteria in the test methods manual, then the Permittee shall resample and retest within 14 days.
 - g. If the discharged effluent is chlorinated, then chlorine shall not be removed from the effluent sample prior to toxicity testing without written approval by the permitting authority.
 - h. pH drift during a toxicity test may contribute to artifactual toxicity when pH-dependent toxicants (e.g., ammonia, metals) are present in the effluent. To determine whether or not pH drift is contributing to artifactual toxicity, the permittee shall conduct three sets of side-by-side toxicity tests in which the pH of one treatment is controlled at the pH of the effluent while the pH of the other treatment is not controlled, as described in Section 11.3.6.1 of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002). Toxicity is confirmed to be artifactual and due to pH drift when no toxicity above the chronic WET permit limit or trigger is observed in the treatments controlled at the pH of the effluent. Upon this confirmation and following written approval by the permitting authority, the Permittee may use the procedures outlined in Section 11.3.6.2 of the chronic freshwater test methods manual to control effluent sample pH during the toxicity test.
5. Initial Investigation TRE Work Plan

Within 90 days of the permit effective date, the Permittee shall prepare and submit to the permitting authority a copy of its Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan (1-2 pages) for review. This plan shall include steps the permittee intends to follow if toxicity is measured above the chronic WET trigger and should include the following, at minimum:

- a. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.

- b. A description of methods for maximizing in-house treatment system efficiency, good housekeeping practices, and a list of all chemicals used in operations at the facility.
 - c. If a Toxicity Identification Evaluation (TIE) is necessary, an indication of who would conduct the TIEs (i.e., an in-house expert or outside contractor).
6. Accelerated Toxicity Testing and TRE/TIE Process
- a. If the chronic WET trigger is exceeded and the source of toxicity is known (e.g., a temporary plant upset), then the Permittee shall conduct one additional toxicity test using the same species and test method. This toxicity test shall begin within 14 days of receipt of a test result exceeding the chronic WET permit trigger. If the additional toxicity test does not exceed the chronic WET permit trigger, then the Permittee may return to the regular testing frequency.
 - b. If the chronic WET trigger is exceeded and the source of toxicity is not known, then the Permittee shall conduct six additional toxicity tests using the same species and test method, approximately every two weeks, over a 12-week period. This testing shall begin within 14 days of receipt of a test result exceeding the chronic WET permit trigger. If none of the additional toxicity tests exceed the chronic WET permit trigger, then the Permittee may return to the regular testing frequency.
 - c. If one of the additional toxicity tests (in paragraphs 6.a or 6.b) exceeds the chronic WET permit trigger, then, within 14 days of receipt of this test result, the Permittee shall initiate a TRE using, according to the type of treatment facility, EPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99/002, 1999) or EPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, 1989). In conjunction, the Permittee shall develop and implement a Detailed TRE Work Plan which shall include the following: further actions undertaken by the Permittee to investigate, identify, and correct the causes of toxicity; actions the Permittee will take to mitigate the effects of the discharge and prevent the recurrence of toxicity; and a schedule for these actions.
 - d. The Permittee may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, EPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996).

7. Reporting of Chronic Toxicity Monitoring Results

- a. The Permittee shall report on the DMR for the month in which the toxicity test was conducted: “Pass” or “Fail” (based on the Welch’s t-test result) and the calculated “percent mean response at IWC”, where:

$$\text{percent mean response at IWC} = ((\text{Control mean response} - \text{IWC mean response}) \div \text{Control mean response}) \times 100$$

- b. The Permittee shall submit a full laboratory report for all toxicity testing as an attachment to the DMR for the month in which the toxicity test was conducted. The laboratory report shall contain: the toxicity test results; the dates of sample collection and initiation of each toxicity test; all results for effluent parameters monitored concurrently with the toxicity test(s); and progress reports on TRE/TIE investigations.
- c. The Permittee shall notify the permitting authority in writing within 14 days of exceedance of the chronic WET trigger. This notification shall describe actions the Permittee has taken or will take to investigate, identify, and correct the causes of toxicity; the status of actions required by this permit; and schedule for actions not yet completed; or reason(s) that no action has been taken.

8. Permit Reopener for Chronic Toxicity

In accordance with 40 CFR 122 and 124, this permit may be modified to include effluent limitations or permit conditions to address chronic toxicity in the effluent or receiving waterbody, as a result of the discharge; or to implement new, revised, or newly interpreted water quality standards applicable to chronic toxicity.

Table 2.2. Toxicity Limits and Monitoring Requirements – Outfall Number 01A

Parameter	Discharge Limitation	Monitoring Requirements ⁽²⁾	
	Daily Maximum	Frequency	Sample Type
Chronic Toxicity Testing	(1)	(2)	Composite

NOTES:

- (1) There is no discharge limitation for chronic toxicity at this time. Monitoring and reporting for chronic toxicity are specified in Section 1 and 2 below.
- (2) See discussion in Section 3.b. above for determination of frequency of Chronic toxicity testing.

4. Internal Outfall 01B – Chemical Metal Cleaning Wastewater

During the period beginning on the effective date of this permit and lasting through date of expiration, the Permittee is authorized to discharge from Internal Outfall No. 01B.

Such discharges shall be limited and monitored by the Permittee as specified below. Samples shall be collected prior to mixing with any other waste source stream and/or discharge to the circulating water canal.

Table 3. Effluent Limits and Monitoring Requirements – Outfall Number 01B

Parameter	Maximum Allowable Discharge Limits				Monitoring Requirements ⁽²⁾	
	Concentration and Loading					
	Average Monthly	Average Weekly	Maximum Daily	Units	Frequency	Sample Type
Flow ⁽¹⁾	-	-	-	MGD	Once/Day	Estimated
TSS	-	30	100	mg/L	1/Occurrence	Discrete
Oil & Grease	-	15	20	mg/L	1/Occurrence	Discrete
Iron	-	1.0	1.0	mg/L	1/Occurrence	Discrete
Copper, total	-	1.0	1.0	mg/L	1/Occurrence	Discrete
pH	between 6.0 to 9.0 std. units				1/Occurrence	Discrete

NOTES:

(1) Defined in 40 CFR 423.11

5. Internal Outfall 01E – Combined Waste Treatment Pond Discharge

During the period beginning with the effective date of this permit and lasting through the date of expiration, the Permittee is authorized to discharge from Internal Outfall No. 01E.

Such discharges shall be limited and monitored by the Permittee as specified below. Samples shall be collected prior to mixing with any other waste source stream and/or release to the circulating water canal.

Table 4. Effluent Limits and Monitoring Requirements – Outfall Number 01E

Parameter	Maximum Allowable Discharge Limits				Monitoring Requirements	
	Concentration and Loading			Units		
	Average Monthly	Average Weekly	Maximum Daily		Frequency	Sample Type
Flow	-	-	-	MGD	Once/Week	Estimated (1)
TSS	-	30	100	mg/L	Once/Week	Discrete
Oil & Grease	15.0		20.0	mg/L	Once/Week	Discrete
pH	between 6.0 to 9.0 std. units				Once/Week	Discrete

NOTES:

(1) Report both average and maximum daily flows.

B. General Discharge Specification**1. PCB Fluids**

As per 40 CFR 423.13 There shall be no discharge of polychlorinated biphenyl (PCB) fluids from any waste streams.

2. Surface Seepage

Surface seepage intercept systems shall be constructed and operated for existing and future unlined ash ponds. Water collected by these intercept systems shall be returned to the ash ponds, or evaporation ponds. All provisions of the Seepage Monitoring and Management Plan as described below in the Special Conditions Section must be implemented.

3. Cooling Water Requirements

The Permittee shall submit all the material required under 40 CFR 122.21 (r) (1)-(8) upon submittal of their next renewal application.

C. General Monitoring and Reporting

1. All monitoring shall be conducted in accordance with 40 CFR 136 test methods, unless otherwise specified in this permit. For influent and effluent analyses required in this permit, the Permittee shall utilize 40 CFR 136 test methods with MDLs and MLs that are lower than the effluent limits in this permit and the water quality criteria concentrations in the National Recommended Water Quality Criteria. If all MDLs or MLs are higher than these effluent limits or criteria concentrations, then the Permittee shall utilize the test method with the lowest MDL or ML. In this context, the Permittee shall ensure that the laboratory utilizes a standard calibration where the lowest standard point is equal to or less than the ML. Influent and effluent analyses for metals shall measure "total recoverable metal", except as provided under 40 CFR 122.45(c).
2. As an attachment to the first DMR, the Permittee shall submit, for all parameters with monitoring requirements specified in this permit:

- a. The test method number or title and published MDL or ML,
- b. The preparation procedure used by the laboratory,
- c. The laboratory's MDL for the test method computed in accordance with Appendix B of 40 CFR 136,
- d. The standard deviation (S) from the laboratory's MDL study,
- e. The number of replicate analyses (n) used to compute the laboratory's MDL, and
- f. The laboratory's lowest calibration standard.

As part of each DMR submittal, the Permittee shall certify that there are no changes to the laboratory's test methods, MDLs, MLs, or calibration standards. If there are any changes to the laboratory's test methods, MDLs, MLs, or calibration standards, these changes shall be summarized in an attachment to the subsequent DMR submittal.

3. The Permittee shall develop a Quality Assurance ("QA") Manual for the field collection and laboratory analysis of samples. The purpose of the QA Manual is to assist in planning for the collection and analysis of samples and explaining data anomalies if they occur. At a minimum, the QA Manual shall include the following:
 - a. Identification of project management and a description of the roles and responsibilities of the participants; purpose of sample collection; matrix to be sampled; the analytes or compounds being measured; applicable technical, regulatory, or program-specific action criteria; personnel qualification requirements for collecting samples;
 - b. Description of sample collection procedures; equipment used; the type and number of samples to be collected including QA/Quality Control ("QC") samples; preservatives and holding times for the samples (see 40 CFR 136.3); and chain of custody procedures;
 - c. Identification of the laboratory used to analyze the samples; provisions for any proficiency demonstration that will be required by the laboratory before or after contract award such as passing a performance evaluation sample; analytical method to be used; MDL and ML to be reported; required QC results to be reported (e.g., matrix spike recoveries, duplicate relative percent differences, blank contamination, laboratory control sample recoveries, surrogate spike recoveries, etc.) and acceptance criteria; and corrective actions to be taken in response to problems identified during QC checks; and
 - d. Discussion of how the Permittee will perform data review, report results, and resolve data quality issues and identify limits on the use of data.
4. Throughout all field collection and laboratory analyses of samples, the Permittee shall use the QA/QC procedures documented in their QA Manual. If samples are tested by a contract laboratory, the Permittee shall ensure that the laboratory has a QA Manual

on file. A copy of the Permittee's QA Manual shall be retained on the Permittee's premises and available for review by regulatory authorities upon request. The Permittee shall review its QA Manual annually and revise it, as appropriate.

5. Samples collected during each month of the reporting period must be reported on Discharge Monitoring Report forms, as follows:
 - a. For a *maximum daily* permit limit or monitoring requirement when one or more samples are collected during the month, report either:

The *maximum value*, if the maximum value of all analytical results is greater than or equal to the ML; or
NODI (Q), if the maximum value of all analytical results is greater than or equal to the laboratory's MDL, but less than the ML; or
NODI (B), if the maximum value of all analytical results is less than the laboratory's MDL.
 - b. For an *average weekly* or *average monthly* permit limit or monitoring requirement when only one sample is collected during the week or month, report either:

The *maximum value*, if the maximum value of all analytical results is greater than or equal to the ML; or
NODI (Q), if the maximum value of all analytical results is greater than or equal to the laboratory's MDL, but less than the ML; or
NODI (B), if the maximum value of all analytical results is less than the laboratory's MDL.
 - c. For an *average weekly* or *average monthly* permit limit or monitoring requirement when more than one sample is collected during the week or month, report:

The *average value* of all analytical results where 0 (zero) is substituted for *NODI (B)* and the laboratory's MDL is substituted for *NODI (Q)*.
6. In addition to information requirements specified under 40 CFR 122.41(j)(3), records of monitoring information shall include: the laboratory which performed the analyses and any comment, case narrative, or summary of results produced by the laboratory. The records should identify and discuss QA/QC analyses performed concurrently during sample analyses and whether project and 40 CFR 136 requirements were met. The summary of results must include information on initial and continuing calibration, surrogate analyses, blanks, duplicates, laboratory control samples, matrix spike and matrix spike duplicate results, and sample condition upon receipt, holding time, and preservation.
7. All monitoring results shall be submitted in such a format as to allow direct comparison with the effluent limits, monitoring requirements, and conditions of this permit. Monitoring results are to be reported on EPA Form 3320-1, a pre-printed Discharge Monitoring Report form ("DMR") provided by the EPA Region 9 DMR

Coordinator for NPDES. Monthly DMR forms shall be submitted by the 28th day of the month following the previous reporting period. For example, under monthly submission the DMR form for January is due by February 28th, and under quarterly submission, the three DMR forms for January, February, and March are due on April 28th. Monitoring and reporting schedules are as follows:

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	DMR Due Date
Continuous	Permit effective date	Continuous	28 th day of the month following calendar quarter
Once/Day	Permit effective date	Midnight through 11:59 p.m.	28 th day of the month following calendar quarter
Once/Week	Permit effective date	Sunday through Saturday	28 th day of the month following calendar quarter
Once/Month	Permit effective date	First day of the calendar month through last day of the calendar month	28 th day of the month following calendar quarter
Once/Quarter	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	28 th day of the month following calendar quarter
Once/Year	January 1 following permit effective date	January 1 through December 31	January 28, each year

A DMR form must be submitted for the reporting period even if there was not any discharge. If there is no discharge from the facility during the reporting period, the Permittee shall submit a DMR indicating no discharge as required. Duplicate signed copies of these, and all other reports required herein, shall be submitted to EPA at the following addresses:

NPDES Data Team (WTR-7)
EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

The Discharger has the option to submit all monitoring results in the electronic reporting format approved by EPA. The Discharger may submit DMRs electronically

using EPA's NetDMR application. NetDMR is a national tool for regulated Clean Water Act Permittees to submit DMRs electronically via a secure Internet application to EPA. By using NetDMR, dischargers can discontinue mailing hard copy forms under 40 CFR 122.41 and 403.12

Part II. STANDARD CONDITIONS

The Permittee shall comply with all EPA Region 9 Standard Conditions included in an attachment to this permit (see Attachment A).

Part III. SPECIAL CONDITIONS

A. Seepage Management and Monitoring Plan

A Seepage Monitoring and Management Plan shall be established and implemented to determine the source of and pollutants in seepages below all ash ponds that receive or received coal combustion residue either currently or in the past. The Plan shall be established and submitted to EPA within 120 days of the issuance of this permit. The Plan shall at a minimum do the following:

1. Identify all seeps within 100 meters down gradient of such impoundments;
2. Conduct sampling (or provide summary of current data if sufficient and valid) of seepages for boron, mercury, nickel, selenium, uranium, zinc and total dissolved solids.
3. Provide information about number of flows observed and range of flows observed
4. Provide information about exceedances of any human health, livestock, or chronic or acute aquatic life standards as established in the 2007 NNWQS in the samples collected for analysis.

B. Permit Reopener(s)

In accordance with 40 CFR 122 and 124, this permit may be modified by EPA to include effluent limits, monitoring, or other conditions to implement new regulations, including EPA-approved water quality standards; or to address new information indicating the presence of effluent toxicity or the reasonable potential for the discharge to cause or contribute to exceedances of water quality standards.

C. Twenty-four Hour Reporting of Noncompliance

The Permittee shall report any noncompliance which may endanger human health or the environment. The Permittee is required to provide an oral report by directly speaking

with an EPA staff person within 24 hours from the time the Permittee becomes aware of the circumstances. If the Permittee is unsuccessful in reaching a staff person, the Permittee shall provide notification by 9 a.m. on the first business day following the noncompliance. The Permittee shall notify EPA at the following telephone numbers:

U.S. Environmental Protection Agency
CWA Compliance Office (WTR-7)
(415) 972-3577

The Permittee shall follow up with a written submission within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

1. The following shall be included as information which must be reported within 24 hours under this paragraph.
 - a. Any unanticipated bypass which exceeds any effluent limit in the permit (see 40 CFR 122.44(g)).
 - b. Any upset which exceeds any effluent limit in the permit.
 - c. Violation of a maximum daily discharge limit for any of the pollutants listed by the director in the permit to be reported within 24 hours (see 40 CFR 122.44(g)).
2. The Director may waive the written report on a case-by-case basis for reports required under paragraph B.2, if the oral report has been received within 24 hours.

Part IV. ATTACHMENTS

Attachment A: Definitions

1. "Average monthly discharge limitation" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
2. "Average weekly discharge limitation" means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.
3. "Best Management Practices" or "BMPs" are schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural, and/or managerial practices to prevent or reduce the pollution of waters of the U.S. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may further be characterized as operational, source control, erosion and sediment control, and treatment BMPs.
4. A "composite" sample means a time-proportioned mixture of not less than eight discrete aliquots obtained at equal time intervals (e.g., 24-hour composite means a minimum of eight samples collected every three hours). The volume of each aliquot shall be directly proportional to the discharge flow rate at the time of sampling, but not less than 100 ml. Sample collection, preservation, and handling shall be performed as described in the most recent edition of 40 CFR 136.3, Table II. Where collection, preservation, and handling procedures are not outlined in 40 CFR 136.3, procedures outlined in the 18th edition of Standard Methods for the Examination of Water and Wastewater shall be used.
5. A "daily discharge" means the "discharge of a pollutant" measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
6. A "daily maximum allowable effluent limitation" means the highest allowable "daily discharge."
7. A "DMR" is a "Discharge Monitoring Report" that is an EPA uniform national form, including any subsequent additions, revisions, or modifications for reporting of self-monitoring results by the Permittee.
8. A "grab" sample is a single sample collected at a particular time and place that represents the composition of the discharge only at that time and place. Sample collection,

preservation, and handling shall be performed as described in the most recent edition of 40 CFR 136.3, Table II. Where collection, preservation, and handling procedures are not outlined in 40 CFR 136.3, procedures outlined in the 18th edition of Standard Methods for the Examination of Water and Wastewater shall be used.

9. The “method detection limit” or “MDL” is the minimum concentration of an analyte that can be detected with 99% confidence that the analyte concentration is greater than zero, as defined by a specific laboratory method in 40 CFR 136. The procedure for determination of a laboratory MDL is in 40 CFR 136, Appendix B.
10. The “minimum level” or “ML” is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed in a specific analytical procedure, assuming that all the method-specific sample weights, volumes, and processing steps have been followed (as defined in EPA’s draft National Guidance for the Permitting, Monitoring, and Enforcement of Water Quality-Based Effluent Limitations Set Below Analytical Detection/Quantitative Levels, March 22, 1994). If a published method-specific ML is not available, then an interim ML shall be calculated. The interim ML is equal to 3.18 times the published method-specific MDL rounded to the nearest multiple of 1, 2, 5, 10, 20, 50, etc. (When neither an ML nor MDL are available under 40 CFR 136, an interim ML should be calculated by multiplying the best estimate of detection by a factor of 3.18; when a range of detection is given, the lower end value of the range of detection should be used to calculate the ML.) At this point in the calculation, a different procedure is used for metals, than non-metals:
 - a. For metals, due to laboratory calibration practices, calculated MLs may be rounded to the nearest whole number.
 - b. For non-metals, because analytical instruments are generally calibrated using the ML as the lowest calibration standard, the calculated ML is then rounded to the nearest multiple of (1, 2, or 5) x 10ⁿ, where n is zero or an integer. (For example, if an MDL is 2.5 µg/l, then the calculated ML is: 2.5 µg/l x 3.18 = 7.95 µg/l. The multiple of (1, 2, or 5) x 10ⁿ nearest to 7.95 is 1 x 10¹ = 10 µg/l, so the calculated ML, rounded to the nearest whole number, is 10 µg/l.)
11. A “NODI(B)” means that the concentration of the pollutant in a sample is not detected. NODI(B) is reported when a sample result is less than the laboratory’s MDL.
12. A “NODI(Q)” means that the concentration of the pollutant in a sample is detected but not quantified. NODI(Q) is reported when a sample result is greater than or equal to the laboratory’s MDL, but less than the ML.
13. “Average monthly discharge limitation” means the highest allowable average of “daily discharges” over a calendar month, calculated as the sum of all “daily discharges”

measured during a calendar month divided by the number of “daily discharges” measured during that month.

14. “Average weekly discharge limitation” means the highest allowable average of “daily discharges” over a calendar week, calculated as the sum of all “daily discharges” measured during a calendar week divided by the number of “daily discharges” measured during that week.
15. “Best Management Practices” or “BMPs” are schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural, and/or managerial practices to prevent or reduce the pollution of waters of the U.S. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may further be characterized as operational, source control, erosion and sediment control, and treatment BMPs.
16. A “composite” sample means a time-proportioned mixture of not less than eight discrete aliquots obtained at equal time intervals (e.g., 24-hour composite means a minimum of eight samples collected every three hours). The volume of each aliquot shall be directly proportional to the discharge flow rate at the time of sampling, but not less than 100 ml. Sample collection, preservation, and handling shall be performed as described in the most recent edition of 40 CFR 136.3, Table II. Where collection, preservation, and handling procedures are not outlined in 40 CFR 136.3, procedures outlined in the 18th edition of Standard Methods for the Examination of Water and Wastewater shall be used.
17. A “daily discharge” means the “discharge of a pollutant” measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the “daily discharge” is calculated as the average measurement of the pollutant over the day.
18. A “daily maximum allowable effluent limitation” means the highest allowable “daily discharge.”
19. A “DMR” is a “Discharge Monitoring Report” that is an EPA uniform national form, including any subsequent additions, revisions, or modifications for reporting of self-monitoring results by the Permittee.
20. A “grab” sample is a single sample collected at a particular time and place that represents the composition of the discharge only at that time and place. Sample collection, preservation, and handling shall be performed as described in the most recent edition of 40 CFR 136.3, Table II. Where collection, preservation, and handling procedures are not

outlined in 40 CFR 136.3, procedures outlined in the 18th edition of Standard Methods for the Examination of Water and Wastewater shall be used.

21. The “method detection limit” or “MDL” is the minimum concentration of an analyte that can be detected with 99% confidence that the analyte concentration is greater than zero, as defined by a specific laboratory method in 40 CFR 136. The procedure for determination of a laboratory MDL is in 40 CFR 136, Appendix B.
22. The “minimum level” or “ML” is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed in a specific analytical procedure, assuming that all the method-specific sample weights, volumes, and processing steps have been followed (as defined in EPA’s draft National Guidance for the Permitting, Monitoring, and Enforcement of Water Quality-Based Effluent Limitations Set Below Analytical Detection/Quantitative Levels, March 22, 1994). If a published method-specific ML is not available, then an interim ML shall be calculated. The interim ML is equal to 3.18 times the published method-specific MDL rounded to the nearest multiple of 1, 2, 5, 10, 20, 50, etc. (When neither an ML nor MDL are available under 40 CFR 136, an interim ML should be calculated by multiplying the best estimate of detection by a factor of 3.18; when a range of detection is given, the lower end value of the range of detection should be used to calculate the ML.) At this point in the calculation, a different procedure is used for metals, than non-metals:
 - a. For metals, due to laboratory calibration practices, calculated MLs may be rounded to the nearest whole number.
 - b. For non-metals, because analytical instruments are generally calibrated using the ML as the lowest calibration standard, the calculated ML is then rounded to the nearest multiple of (1, 2, or 5) x 10ⁿ, where n is zero or an integer. (For example, if an MDL is 2.5 µg/l, then the calculated ML is: 2.5 µg/l x 3.18 = 7.95 µg/l. The multiple of (1, 2, or 5) x 10ⁿ nearest to 7.95 is 1 x 10¹ = 10 µg/l, so the calculated ML, rounded to the nearest whole number, is 10 µg/l.)
23. A “NODI(B)” means that the concentration of the pollutant in a sample is not detected. NODI(B) is reported when a sample result is less than the laboratory’s MDL.
24. A “NODI(Q)” means that the concentration of the pollutant in a sample is detected but not quantified. NODI(Q) is reported when a sample result is greater than or equal to the laboratory’s MDL, but less than the ML.

Attachment B: Standard Permit Condition



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

CWA STANDARDS AND PERMITS OFFICE (WTR-5)

STANDARD FEDERAL NPDES PERMIT CONDITIONS

Updated as of July 27, 2011

Reference: 40 CFR Parts 100 to 135, July 1, 2009

A. *All NPDES Permits*

In accordance with 40 CFR 122.41, the following conditions apply to all NPDES permits and are expressly incorporated into this permit.

a. Duty to comply; at 40 CFR 122.41(a).

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the CWA and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

- (1) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under 405(d) of the CWA within the time provided in the regulations that established these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
- (2) The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The CWA provides that any person who *negligently* violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by

imprisonment of not more than 2 years, or both. Any person who *knowingly* violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, such as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.

- (3) Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

- b. Duty to reapply; at 40 CFR 122.41(b).

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

- c. Need to halt or reduce activity not a defense; at 40 CFR 122.41(c).

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

- d. Duty to mitigate; at 40 CFR 122.41(d).

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

- e. Proper operation and maintenance; at 40 CFR 122.41(e).

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems

which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

- f. Permit actions; at 40 CFR 122.41(f).

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

- g. Property rights; at 40 CFR 122.41(g).

This permit does not convey any property rights of any sort, or any exclusive privilege.

- h. Duty to provide information; at 40 CFR 122.41(h).

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

- i. Inspection and entry; at 40 CFR 122.41(i).

The permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

- (1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location.

- j. Monitoring and records; at 40 CFR 122.41(j).

- (1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (2) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the

application for this permit, for a period of at least 3 years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time.

(3) Records of monitoring information shall include:

- (i) The date, exact place, and time of sampling or measurements;
- (ii) The individual(s) who performed the sampling or measurements;
- (iii) The date(s) analyses were performed
- (iv) The individuals(s) who performed the analyses;
- (v) The analytical techniques or methods used; and
- (vi) The results of such analyses.

(4) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR part 503, unless other test procedures have been specified in the permit.

(5) The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

k. Signatory requirement; at 40 CFR 122.41(k).

(1) All applications, reports, or information submitted to the Director shall be signed and certified. (See 40 CFR 122.22.)

(2) The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

l. Reporting requirements; at 40 CFR 122.41(l).

(1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alternations or additions to the permitted facility. Notice is required only when:

- (i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

- (ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).
 - (iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
- (2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (3) Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the CWA. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory.)
- (4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
 - (i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.
 - (ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 503, or as specified in the permit, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.
 - (iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.
- (5) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (6) Twenty-four hour reporting.
 - (i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the

noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(ii) The following shall be included as information which must be reported within 24 hours under this paragraph.

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR 122.41(g).)

(B) Any upset which exceeds any effluent limitation in the permit.

(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. (See 40 CFR 122.44(g).)

(iii) The Director may waive the written report on a case-by-case basis for reports under 40 CFR 122.41(l)(6)(ii) of this section if the oral report has been received within 24 hours.

(7) Other noncompliance. The permittee shall report all instances of noncompliance not reported under 40 CFR 122.41(l)(4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (l)(6) of this section.

(8) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

m. Bypass; at 40 CFR 122.41(m).

(1) Definitions.

(i) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

(ii) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(2) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 40 CFR 122.41(m)(3) and (m)(4) of this section.

(3) Notice.

- (i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (l)(6) of this section (24-hour notice).

(4) Prohibition of bypass.

- (i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
 - (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
 - (C) The permittee submitted notices as required under paragraph (m)(3) of this section.
- (ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (m)(4)(i) of this section.

n. Upset; at 40 CFR 122.41(n).

- (1) Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent cause by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.
- (2) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (n)(3) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (3) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (i) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (ii) The permitted facility was at the time being properly operated; and

(iii) The permittee submitted notice of the upset as required in paragraph (l)(6)(ii)(B) of this section (24 hour notice).

(iv) The permittee complied with any remedial measures required under paragraph (d) of this section.

(4) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

B. Specific Categories of NPDES Permits

In accordance with 40 CFR 122.42, the following conditions, in addition to those set forth at 40 CFR 122.41, apply to all NPDES permits within the category specified below and are expressly incorporated into this permit.

a. Existing manufacturing, commercial, mining, and silvicultural dischargers; at 40 CFR 122.42 (a).

All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

(1) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(i) One hundred micrograms per liter (100 µg/l);

(ii) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or

(iv) The level established by the Director in accordance with 40 CFR 122.44(f).

(2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(i) Five hundred micrograms per liter (500 µg/l);

(ii) One milligram per liter (1 mg/l) for antimony;

(iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).

(iv) The level established by the Director in accordance with 40 CFR 122.44(f).

b. Publicly owned treatment works; at 40 CFR 122.42(b).

All POTWs must provide adequate notice to the Director of the following:

- (1) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 and 306 of the CWA if it were directly discharging those pollutants; and
- (2) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- (3) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

The following condition has been established by EPA Region 9 to enforce applicable requirements of the Resource Conservation and Recovery Act:

- (1) Publicly owned treatment works may not receive hazardous waste by truck, rail, or dedicated pipe except as provided under 40 CFR 270. Hazardous wastes are defined at 40 CFR 261 and include any mixture containing any waste listed under 40 CFR 261.31 through 261-33. The Domestic Sewage Exclusion (40 CFR 261.4) applies only to wastes mixed with domestic sewage in a sewer leading to a publicly owned treatment works and not to mixtures of hazardous wastes and sewage or septage delivered to the treatment plant by truck.

c. Municipal Separate Storm Sewer Systems; at 40 CFR 122.42(c).

The operator of a large or medium municipal separate storm sewer system or a municipal separate storm sewer that has been designated by the Director under 40 CFR 122.26(a)(1)(v) must submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include:

- (1) The status of implementing the components of the storm water management program that are established as permit conditions;
- (2) Proposed changes to the storm water management programs that are established as permit conditions. Such proposed changes shall be consistent with 40 CFR 122.26(d)(2)(iii); and
- (3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under 40 CFR 122.26(d)(2)(iv) and (d)(2)(v);
- (4) A summary of the data, including monitoring data, that is accumulated throughout the reporting year;
- (5) Annual expenditures and budget for year following each annual report;
- (6) A summary describing the number and nature of enforcement actions, inspections, and public education programs;
- (7) Identification of water quality improvements or degradation.

d. Storm Water Discharges; at 40 CFR 122.42(d).

The initial permits for discharges composed entirely of storm water issued pursuant to 40 CFR 122.26(e)(7) shall require compliance with the conditions of the permit as expeditiously as practicable, but in no event later than three years after the issuance of the permit.

e. Privately Owned Treatment Works; at 40 CFR 122.44(m).

For a privately owned treatment works, any conditions expressly applicable to any user, as a limited co-permittee, that may be necessary in the permit issued to the treatment works to ensure compliance with applicable requirements under this part. Alternatively, the Director may issue separate permits to the treatment works and to its users, or may require a separate permit application from any user. The Director's decision to issue a permit with no conditions applicable to any user, to impose conditions on one or more users, to issue separate permits, or to require separate applications, and the basis for that decision, shall be stated in the fact sheet for the draft permit for the treatment works.

The following conditions are established to enforce applicable requirements of the Resource Conservation and Recovery Act and 40 CFR 122.44(m). Privately owned treatment works are defined at 40 CFR 122.2. "Privately owned treatment works" means any device or system which is (a) used to treat wastes from any facility whose operator is not the operator of the treatment works and (b) not a POTW, as defined at 40 CFR 403.3.

- (1) Materials authorized to be disposed of into the privately owned treatment works and collection system are typical of domestic sewage. Unauthorized materials are hazardous waste (as defined at 40 CFR 261), motor oil, gasoline, paints, varnishes, solvents, pesticides, fertilizers, industrial wastes, or other materials not generally associated with toilet flushing or personal hygiene, laundry, or food preparation, unless specifically listed under "Authorized Non-domestic Sewer Dischargers" elsewhere in this permit.
- (2) It is the permittee's responsibility to inform users of the privately owned treatment works and collection system of the prohibition against unauthorized materials and to ensure compliance with the prohibition. The permittee must have the authority and capacity to sample all discharges to the collection system, including any from septic haulers or other unsewered dischargers, and shall take and analyze such samples for conventional, toxic, or hazardous pollutants when instructed by the permitting authority or by an EPA, State, or Tribal inspector. The permittee must provide adequate security to prevent unauthorized discharges to the collection system.
- (3) Should a user of the privately owned treatment works desire authorization to discharge non-domestic wastes, the permittee shall submit a request for permit modification and an application, pursuant to 40 CFR 122.44(m), describing the proposed discharge. The application shall, to the extent possible, be submitted using EPA Forms 1 and 2C, unless another format is requested by the permitting authority. If the privately owned treatment works or collection system user is different from the permittee, and the permittee agrees to allow the non-domestic discharge, the user shall submit the application and the permittee shall submit the permit modification upon request. The application and request for modification shall be submitted at least six months before authorization to discharge non-domestic wastes to the privately owned treatment works or collection system is desired.

C. Standard Conditions Established by EPA Region 9 for All NPDES Permits

1. Duty to reapply; at 40 CFR 122.21(d).
 - a. Any POTW with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
 - b. All other permittees with currently effective permits shall submit a new application 180 days before the existing permit expires, except that:
 - (1) the Regional Administrator may grant permission to submit an application later than the deadline for submission otherwise applicable, but no later than the permit expiration date.
2. Signatories to permit applications and reports; at 40 CFR 122.22.
 - a. Applications. All permit applications shall be signed as follows:
 - (1) For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Note: EPA does not require specific assignments or delegations of authority to responsible corporate officers identified in 40 CFR 122.22(a)(1)(i). The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under 40 CFR 122.22(a)(1)(ii) rather than to specific individuals.
 - (2) For a partnership or sole proprietorship. By a general partner or the proprietor, respectively; or
 - (3) For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

- b. All reports required by permits, and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - (1) The authorization is made in writing by a person described in paragraph (a) of this section;
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters of the company, (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and,
 - (3) The written authorization is submitted to the Director.
- c. Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.
- d. Certification. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

3. Reopener Clause; at 40 CFR 122.44(c).

For any permit issued to a treatment works treating domestic sewage (including “sludge-only facilities”), the Director shall include a reopener clause to incorporate any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the CWA. The Director may promptly modify or revoke and reissue any permit containing the reopener clause required by this paragraph if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or controls a pollutant or practice not limited in the permit.

4. Transfer of permits; at 40 CFR 122.61.

- a. Transfers by modification. Except as provided in paragraph (b) of this section, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under 40 CFR 122.62(b)(2)), or a minor modification made (under 40 CFR 122.63(d)), to identify the new permittee and incorporate such other requirements as may be necessary under CWA.

- b. Automatic transfers. As an alternative to transfers under paragraph (a) of this section, any NPDES permit may be automatically transferred to a new permittee if:
 - (1) The current permittee notifies the Director at least 30 days in advance of the proposed transfer date in paragraph (b)(2) of this section;
 - (2) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - (3) The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify or revoke and reissue the permit. A modification under this subparagraph may also be a minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph (b)(2) of this section.

5. Minor modifications of permits; at 40 CFR 122.63.

Upon the consent of the permittee, the Director may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without following the procedures of 40 CFR 124. Any permit modification not processed as a minor modification under this section must be made for cause and with 40 CFR 124 draft permit and public notice as required in 40 CFR 122.62. Minor modifications may only:

- a. Correct typographical errors;
- b. Require more frequent monitoring or reporting by the permittee;
- c. Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement; or
- d. Allow for a change in ownership or operational control of a facility where the Director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the Director.
- e. (1) Change the construction schedule for a discharger which is a new source. No such change shall affect a discharger's obligation to have all pollution control equipment installed and in operation prior to discharge under 40 CFR 122.29.
 (2) Delete a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits.
- f. [Reserved]
- g. Incorporate conditions of a POTW pretreatment program that has been approved in accordance with the procedures in 40 CFR 403.11 (or a modification thereto that has been approved in accordance with the procedures in 40 CFR 403.18) as enforceable conditions of the POTW's permits.

6. Termination of permits; at 40 CFR 122.64.

- a. The following are causes for terminating a permit during its term, or for denying a permit renewal application:
- (1) Noncompliance by the permittee with any conditions of the permit;
 - (2) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time;
 - (3) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or
 - (4) A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge or sludge use or disposal practice controlled by the permit (for example, plant closure or termination of discharge by connection to a POTW).
- b. The Director shall follow the applicable procedures in 40 CFR 124 or 40 CFR 122.22, as appropriate (or State procedures equivalent to 40 CFR 124) in terminating any NPDES permit under this section, except that if the entire discharge is permanently terminated by elimination of the flow or by connection to a POTW (but not by land application or disposal into a well), the Director may terminate the permit by notice to the permittee. Termination by notice shall be effective 30 days after notice is sent, unless the permittee objects within that time. If the permittee objects during that period, the Director shall follow 40 CFR 124 or applicable State procedures for termination. Expedited permit termination procedures are not available to permittees that are subject to pending State and/or Federal enforcement actions including citizen suits brought under State or Federal law. If requesting expedited permit termination procedures, a permittee must certify that it is not subject to any pending State or Federal enforcement actions including citizen suits brought under State or Federal law. State-authorized NPDES programs are not required to use part 22 of this chapter's procedures for NPDES permit terminations.

7. Availability of Reports; pursuant to CWA section 308

Except for data determined to be confidential under 40 CFR 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Regional Administrator. As required by the CWA, permit applications, permits, and effluent data shall not be considered confidential.

8. Removed Substances; pursuant to CWA section 301

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials entering waters of the U.S.

9. Severability; pursuant to CWA section 512

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and remainder of this permit, shall not be affected thereby.

10. Civil and Criminal Liability; pursuant to CWA section 309

Except as provided in permit conditions on "Bypass" and "Upset", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

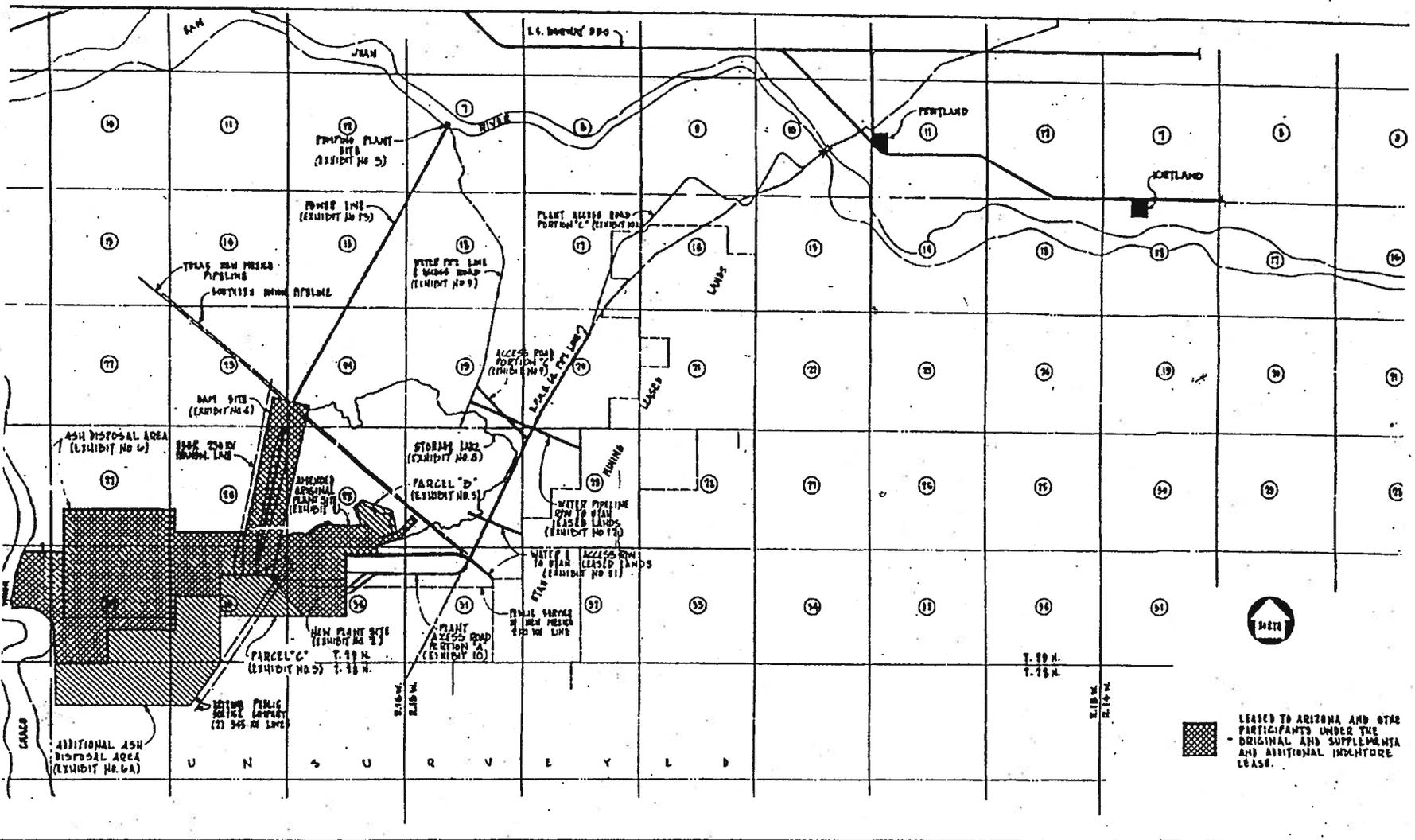
11. Oil and Hazardous Substances Liability; pursuant to CWA section 311

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the CWA.

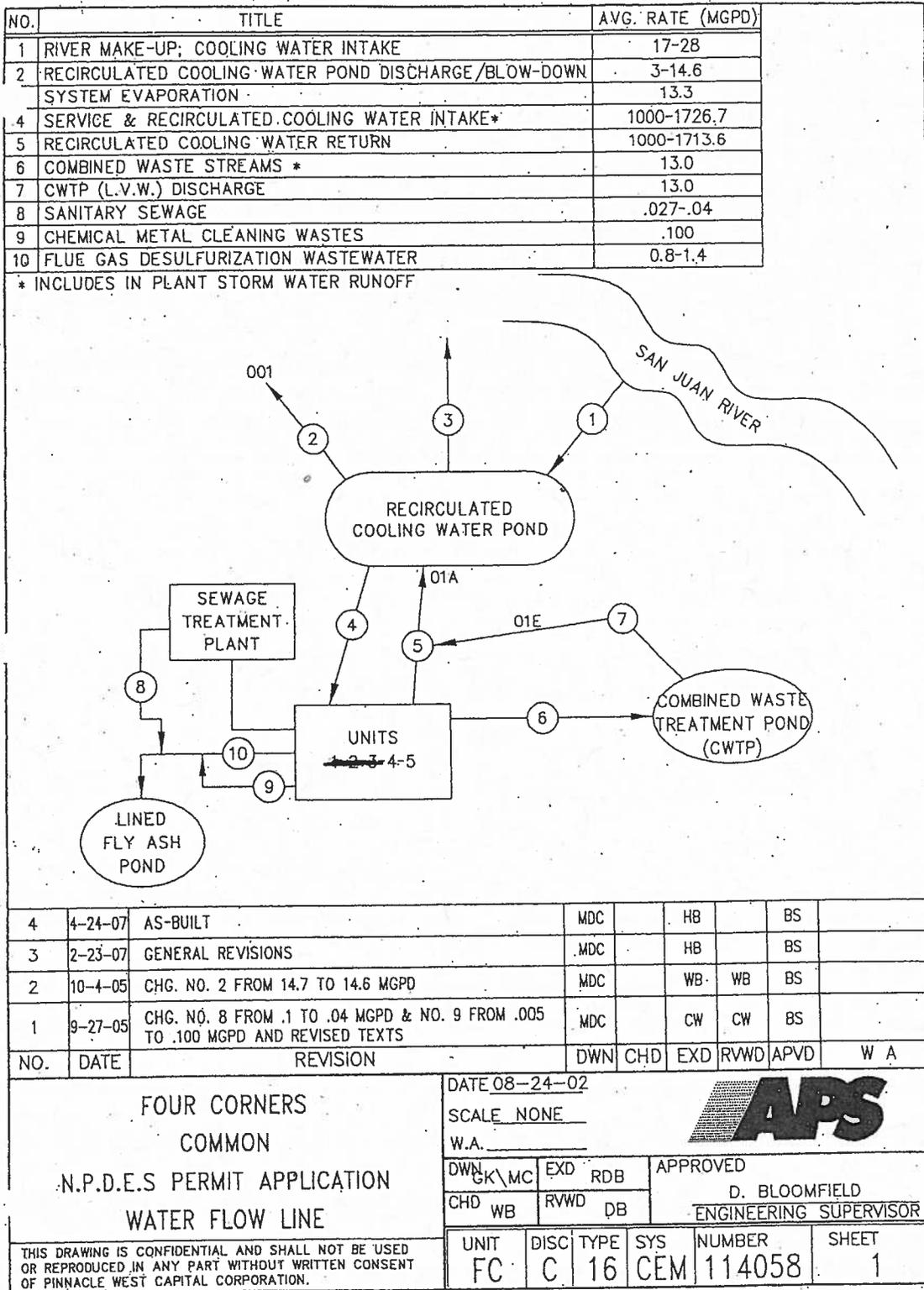
12. State, Tribe, or Territory Law; pursuant to CWA section 510

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State, Tribe, or Territory law or regulation under authorities preserved by CWA section 510.

Attachment C: Location Map



Attachment D: Wastewater Flow Schematic



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PROPOSED PERMIT FACT SHEET

Permittee Name: Arizona Public Service Company

Mailing Address: P.O. Box 53999
Phoenix, AZ 85072

Facility Address: Four Corners Power Plant
P.O. Box 355, Station 4900
Fruitland, NM 87416

Contact Person(s): Tom Livingston, Site Manager
Tel: (505) 598-8200

NPDES Permit No.: NN0000019

I. STATUS OF PERMIT

The United States Environmental Protection Agency (hereinafter "EPA Region 9" or "EPA") re-issued the current National Pollutant Discharge Elimination System Program (NPDES) Permit (No. NN0000019) for the discharge of treated wastewater from the Arizona Public Service Company's (hereinafter "APS" or "the Permittee" or "the Applicant") Four Corners Power Plant (hereinafter "FCPP" or "the Plant") to No Name Wash in the Navajo Nation on January 24, 2001 with an expiration date of January 24, 2006. On October 5, 2005 APS as co-owner and operator of the FCPP applied to the United States Environmental Protection Agency, Region 9 (hereinafter "EPA Region 9" or "EPA") for renewal of APS' permit for discharge of wastewater to waters of the United States, and the permit was administratively extended. APS subsequently provided updates to their initial application, allowing the facility to operate under the administrative extension. Via a letter dated October 30, 2012, EPA Region 9 requested that APS submit a fully revised application that reflected current operations, as well as future plans for the next permit cycle. On or about February 15, 2013 APS submitted a revised application, which included a description of the planned shutdown of Units 1, 2, and 3, as well as likely impacts on surface water discharges to be regulated under a renewed NPDES permit. On December 30, 2013 APS shutdown Units 1, 2, and 3. EPA Region 9 has developed this permit and fact sheet based on the latest information regarding operations and pursuant to Section 402 of the Clean Water Act, which requires point source dischargers to control the amount of pollutants that are discharged to waters of the United States through obtaining a NPDES permit.

II. GENERAL DESCRIPTION OF FACILITY

The APS FCPP is located in San Juan County about 20 miles southwest of Farmington, New Mexico. The Plant is located on Navajo Nation and is partially owned and operated by APS on behalf of itself as well as the Salt River Project Agricultural Improvement and Power District, El

Paso Electric Company, Public Service Company of New Mexico, and Tucson Electric Power Company. The Permittee originally operated five generating units. Pursuant to EPA air pollution rules, the FCPP was provided the flexibility to choose between two compliance strategies for reducing NOx emissions: EPA's Best Available Retrofit Technology determination requiring new NOx controls on all five generating units by 2017, or APS' alternative to retire units 1, 2, and 3 by 2014 and install new NOx controls on units 4 and 5 by mid-2018. Plant's total generation capacity was originally 2100 megawatts, but following the shutdown of Units 1, 2, and 3 (which occurred on December 30, 2013) the capacity is now 1540 megawatts. The Plant burns low sulfur coal obtained from the adjacent Navajo Mine, owned by the Navajo Transitional Energy Company, LLC (NTEC) and operated by BHP minerals. The cooling water for the two remaining operational units, Unit 4 and 5, comes from the man-made Morgan Lake, adjacent to the Plant. The 1200 acre lake receives its water from the San Juan River at an average rate of about 24.5 million gallons per day. The Plant provides electrical power to utilities in Arizona, Texas, and New Mexico.

APS has applied for authorization to continue discharge from the following outfalls:

Outfall No. 001: Cooling Pond Discharge

Internal Outfall Nos:

- 01A: Condenser Cooling Water Discharge
- 01B: Chemical Waste Cleaning Wastewater
- 01E: Combined Waste Treatment Pond Discharge

III. DESCRIPTION OF RECEIVING WATER

Outfall No. 001 discharges from Morgan Lake to the No Name Wash which is tributary to the Chaco River, which in turn drains to Segment 2-401 of the San Juan River. The discharges according to the permit application submitted by APS from Outfall No. 001 are intermittent with an average of 2.5 days per week of discharge for about 6 months in a year. The average flow rate for the discharge is 4.2 million gallons a day. The length of the No Name Wash from Outfall 001 (parshall flume) to the Chaco River is about 2.5 miles and the point where the No Name Wash meets the Chaco River is about 7 miles from where the Chaco eventually meets the San Juan River. APS mostly discharges in order to regulate total dissolved solids (TDS) build up in the lake which is used for once through cooling of the generating units.

Internal Outfall No. 01A discharges condenser cooling water from Units 4 and 5 into an effluent channel to be recirculated through and cooled off in Morgan Lake. In addition effluent from Outfall No. 01E is mixed with the cooling water before entering Morgan Lake.

Internal Outfall No. 01B is not in use. The Plant currently disposes chemical metal cleaning wastewater to its lined ash pond pursuant to the Dietrich exemption under the Resource Conservation and Recovery Act, but APS wishes to retain Outfall No. 01B for potential future use.

Internal Outfall No. 01E discharges from the combined waste treatment pond (CWTP). The CWTP is a treatment lagoon that treats about 8-13 million gallons per day (MGD) of various

waste streams, including in plant storm water runoff. Effluent from the CWTP enters a culvert leading to the cooling water discharge canal and Outfall No. 01E. Water from Outfall No. 01E is then blended with condenser cooling water discharges prior to discharge from Outfall No. 01A into Morgan Lake.

The facility has its own domestic treatment package plant with capacity of 30,000 gallons per day (GPD). Chemical metal cleaning and flue gas desulfurization (FGD) wastewater is sent to a series of two lined ash ponds. Underflow from units 4 and 5, metal cleaning wastes, and sanitary wastewater effluent from the package plant are combined before being sent to the ash ponds. Two ash ponds operate in series. The first is a single-lined pond where solids settle and floatables are removed and sold for revenue. The effluent from the single-lined pond is sent through a siphon drain system downhill to the double-lined pond. The double-lined pond serves as retention basin holding the effluent before it is pumped for desulfurization reuse. Sanitary waste and FGD blowdown wastewater is not regulated in the NPDES permit.

For a schematic representation of the various outfalls and flows see the Flow Diagram attached to the permit in Appendix D.

IV. DESCRIPTION OF DISCHARGE

A. Application Discharge Data

As part of the application for permit renewal, the Permittee provided data from an analysis of the facility's treated wastewater discharge, shown in Appendix B. The Permittee also provided data from a priority pollutant scan on the effluent sample collected 20-24 August 2012 and reported in September 2012, which is also shown in Appendix B. The data meet existing permit effluent limits.

B. Recent Discharge Monitoring Report (DMR) Data

The last inspection of the APS facility was conducted in May 2012. The inspection report indicated that there were no DMR violations at the facility since the previous inspection. DMR data for the last 2 years, between May 2012 and May 2014 was reviewed and the facility has not reported any instances of violations in their Discharge Monitoring Reports.

V. DETERMINATION OF NUMERICAL EFFLUENT LIMITATIONS

The discharge limitations are based on 40 CFR Part 423 – Effluent Limitation Guidelines (ELGs). EPA has established national standards based on the performance of treatment and control technologies for wastewater discharges to surface waters for certain industrial categories. ELGs represent the greatest pollutant reductions that are economically achievable for an industry, and are based on Best Practicable Control Technology (BPT), Best Conventional Pollutant Control Technology (BCT), and Best Available Technology Economically Achievable (BAT). (Sections 304(b)(1), 304(b)(4), and 304(b)(2) of the CWA respectively). These

requirements are described below. The current ELGs for Steam Electric regulations, were last updated in 1982, and EPA proposed revisions to the regulations to strengthen controls by revising effluent limitations guidelines and standards for the steam electric power generating point source category on April 19, 2013. As of date of this fact sheet a final updated rule has not been adopted and therefore the existing regulations are applicable

Outfall No. 001 – Cooling Pond Discharge

The permit sets flow (14.7 million gallons per day) temperature (32.2 degrees centigrade monthly average and 35 degrees daily maximum), pH limits (no less than 6.0 or greater than 9.0 standard pH units). Temperature is to be monitored continuously and flow must be monitored on a weekly basis. Monitoring for pH and total dissolved solids (TDS) is required on a monthly basis. Total dissolved solids monitoring is required for discharges to tributaries of the San Juan River. These requirements are consistent with those of the previous permit.

Internal Outfall No. 01A – Condenser Cooling Water Discharge

This internal outfall meets the definition of 40 CFR 423.11(g) for “once-through cooling water”, which is water passed through the main cooling condensers in or two passes for the purpose of removing waste heat. As once-through cooling water, Outfall No. 01A is subject to limitations outlined in 40 CFR 423.13(b) (1) and 423.13 (b) (2) for chlorine.

Intermittent chlorination is used as a system biocide in once-through cooling waters. The regulations at 40 CFR Part 423 limit chlorination duration and frequency (two hours/unit/day) to protect the receiving water from chlorine toxicity. The permit limits chlorine residual in the discharge based on the calculations described below.

Total Residual Chlorine: In accordance with 40 CFR 423.13 (b) (1), for any plant with a total rated electric generating capacity of 25 or more megawatts, the quantity of pollutants discharged in once-through cooling water from each discharge point shall not exceed the quantity determined by multiplying the flow of the once-through cooling water from each discharge point times the daily maximum concentration of 0.2 milligrams per liter (mg/L). The total maximum flow from the two units during periods of chlorination (571.6 million gallons a day) is used in the following calculation:

$$\frac{571.6 \text{ million gal}}{\text{Day}} \times \frac{0.2 \text{ mg}}{\text{L}} \times \frac{8.345 \text{ lbs/million gal}}{1 \text{ mg/L}} = 954 \text{ lbs/day}$$

Oil and Grease: Daily maximum and 30-day average concentration limits for oil and grease are established at Outfall No. 01A at 20.0 and 15.0 mg/L respectively.

Other requirements: The pH restricted range is 6.0 to 9.0 standard pH units. Chronic toxicity monitoring is required on a quarterly basis during the first year following issuance of this permit. APS may petition for a reduced measurement frequency after the first year provided there is no reasonable potential for chronic toxicity demonstrated. Flow rates must be calculated and reported.

Internal Outfall No. 01B Chemical metal cleaning

Outfall No. 01B meets the definition of chemical metal cleaning waste under 40 CFR 423.11 (c) and is regulated as such under 40 CFR 423.12 (b) (5) and 423.13 (e). The limits for total suspended solid (TSS) and oil and grease are as follows: The permit sets daily maximum concentration limits of 100.0 and 20.0 mg/L for TSS and oil and grease, respectively. Weekly average concentration limits are 30.0 and 15.0 mg/L for TSS and oil and grease respectively. Limits for copper and iron are each set at 1.0 mg/L for both the daily maximum and weekly average limits. In addition the permit restricts pH to a range of 6.0 to 9.0 standard pH units. These requirements are consistent with those of the previous permit.

Internal Outfall No. 01E Combined Waste Treatment Pond

A large component of the Outfall No. 01E discharge is bottom ash transport water, with low-volume wastewater constituting a smaller component of the discharge. (See 40 CFR 423.11(f) for definition of bottom ash.) As such, Outfall No. 01E is regulated under 40 CFR 423.12 (b) (4) for total suspended solids (TSS) and oil and grease. TSS and oil and grease are subject to the same limits as those for Outfall No. 01B above. The permit also restricts pH to a range of 6.0 to 9.0 standard pH units, and flows must be estimated and reported. These requirements are consistent with those of the previous permit.

In addition to technology-based effluent limitations, the Clean Water Act (CWA) Sections 402 and 301(b)(1)(C) require that an NPDES permit contain effluent limitations that, among other things, are necessary to meet water quality standards. An NPDES permit must contain effluent limits for pollutants that are determined to be discharged at a level which has "the reasonable potential to cause or contribute to an excursion above any State [or Tribal] water quality standard, including State [or Tribal] narrative criteria for water quality." 40 CFR 122.44(3)(1)(i). To determine whether the discharge causes, has the reasonable potential to cause or contributes to an excursion of a numeric or narrative water quality criterion for individual toxicants, the regulatory authority must consider a variety of factors. 40 CFR 122.44(d)(1)(ii). These factors include the following:

- Dilution in the receiving water;
- Existing data on toxic pollutants;
- Type of industry;
- History of compliance problems and toxic impacts; and
- Type of receiving water and designated use.

Based on an application of these factors to the APS FCPP operations and projected wastewater quality data provided in the application, EPA concluded that the discharges do not present a "reasonable potential" to cause or contribute to an exceedance of water quality standards. Due to the facility potentially discharging to dry washes, EPA has not considered available dilution, which may be present in the receiving waters. Therefore, EPA has made the most conservative and protective assumption of no available dilution in its analysis and that water quality standards must be met at the end of pipe prior to discharge. Therefore, based on sampling data and an evaluation of discharge characteristics, EPA has concluded, consistent with the previous permit, that other than the effluent limitations for pH, TSS, Oil and Grease, which are promulgated under the Steam Electric Power Generation ELGs as described in 40 CFR Section 423, that there is no reasonable potential for other pollutants to cause or contribute to a violation of receiving water standards. However, EPA has

included monitoring in the permit for several additional parameters in order to further verify these assumptions.

Although EPA has determined that the discharges do not have a reasonable potential to cause or contribute to an exceedance of water quality standards, the permit sets general conditions based on narrative water quality standards contained in Section 202 of the Navajo Nation Surface Water Quality Standards 2007. These standards are set forth in the Section entitled General Discharge Specifications of the permit.

VI. ANTI-BACKSLIDING/ANTIDegradation

A. Anti-Backsliding

CWA Section 402(o) prohibits the renewal or reissuance of an NPDES permit that contains effluent limits less stringent than those established in the previous permit, except as provided in the statute. The permit does not establish any effluent limits less stringent than those in the previous permit and does not allow backsliding.

B. Antidegradation Policy

EPA's antidegradation policy at 40 CFR 131.12 and Navajo Nation Water Quality Standards require that existing water uses and the level of water quality necessary to protect the existing uses be maintained. As described in this document, the permit establishes effluent limits and monitoring requirements to ensure that all applicable water quality standards are met. The permit does not include a mixing zone, therefore these limits will apply at the end of pipe without consideration of dilution in the receiving water. A priority pollutant scan has been conducted of the effluent, demonstrating that most pollutants will be discharged below detection levels. Although the permit allows loadings of oil and grease, receiving water monitoring data show that existing mass loadings of oil and grease have not resulted in a violation of the narrative standards which states that "the discharge shall be substantially free from visible floating materials, grease, oil, scum, foam, and other floating material attributable to sewage, industrial wastes, or other activities of man". Furthermore, the waterbody is not listed as an impaired waterbody for total suspended solids, turbidity or oil and grease under CWA Section 303(d). Therefore, the discharge is not expected to adversely affect receiving water bodies or result in any degradation of water quality.

VII. OTHER APPLICABLE WATER QUALITY EFFLUENT NT LIMITS

A. Narrative Limits

The Navajo Nation water quality standards contains narrative water quality standards applicable to the receiving water. Therefore, the permit incorporates applicable narrative water quality standards.

B. General Discharge Specifications

In the previous permit the discharge of polychlorinated biphenyl (PCB) fluids was prohibited. Based on best professional judgment and the requirements of the Clean Water Act, this prohibition continues to apply.

C. Surface Seepage

Based on best professional judgment and consistent with the requirements imposed in the previous permit cycle, surface seepage intercept systems are required to be constructed and operated for existing unlined ash ponds. Water collected by these intercept systems shall be returned to the double lined decant pond. Additionally, a Seepage Monitoring and Management Plan shall be established and implemented to determine the source of and pollutants in seepages below all ash ponds that receive or received coal combustion residue either currently or in the past. The Plan shall at a minimum do the following:

1. Identify all seeps within 650 meters down gradient of such impoundments;
2. Conduct sampling (or summary of current data if sufficient and valid) of seepages for boron, mercury, nickel, selenium, uranium, zinc and total dissolved solids (TDS). The details of the requirements of such a plan are provided in the relevant section of the permit.
3. Provide information about number of flows observed and range of flows observed
4. Provide information about exceedances of any human health, livestock, or chronic or acute aquatic life standards in the samples collected for analysis.

D. Cooling Water Regulation

APS operates a closed-cycle recirculating system, circulating from around 1000 up to about 1,700 million gallons a day (MGD) through Morgan Lake, a man-made cooling water impoundment. The applicant withdraws up to a maximum of 48 MGD of water from the San Juan River as make-up water to replenish losses that have occurred due to blowdown, drift, evaporation within Morgan Lake and the cooling system. Currently the San Juan River intake system is equipped with a weir and a channel with a gate. If the water in the river is too low at the intake screens to supply the pumps, the gate in the channel is lowered. The gate and the weir together increase the level at the intake screens to supply the pumps. The intake screens are periodically changed out for cleaning.

Because the facility intakes greater than 2 MGD of cooling water, it must meet requirements under CWA Section 316(b), regulating the design and operations of intake structures for cooling water operations. A rule for existing facilities was adopted by EPA on May 19, 2014 and effective October 14, 2014. That rule requires facilities to minimize environmental impacts due to impingement and entrainment of aquatic organisms in the intake structure. In order to meet requirements for facilities withdrawing less than 125 MGD from a Water of the U.S., the applicant must submit applicable materials under 40 CFR 122.21(r) (1)-(8) along with the submission of their next renewal application. For the current permit cycle, the existing intake system on the San Juan River is equivalent to interim best technology available (BTA) under the regulations.

VIII. MONITORING AND REPORTING REQUIREMENTS

The permit requires the Permittee to conduct monitoring for all pollutants or parameters where effluent limits have been established, at the minimum frequency specified. Additionally, where effluent concentrations of toxic parameters are unknown or where data are insufficient to determine reasonable potential, monitoring may be required for pollutants or parameters where effluent limits have not been established.

A. Effluent Monitoring and Reporting

The Permittee shall conduct effluent monitoring to evaluate compliance with the proposed permit conditions. The Permittee shall perform all monitoring, sampling and analyses in accordance with the methods described in the most recent edition of 40 CFR 136, unless otherwise specified in the proposed permit. All monitoring data shall be reported on monthly DMR forms and submitted quarterly as specified in the proposed permit.

B. Priority Toxic Pollutants Scan

A Priority Toxic Pollutants scan shall be conducted during the fourth year of the five-year permit term to ensure that the discharge does not contain toxic pollutants in concentrations that may cause a violation of water quality standards. The Permittee shall perform all effluent sampling and analyses for the priority pollutants scan in accordance with the methods described in the most recent edition of 40 CFR 136, unless otherwise specified in the proposed permit or by EPA. 40 CFR 131.36 provides a complete list of Priority Toxic Pollutants. The Priority Toxic Pollutants scan shall be conducted on two samples. One from the discharge from Outfall No. 01E and the other from Outfall No. 001.

C. Whole Effluent Toxicity Testing

The permit establishes monitoring for chronic toxicity for discharge from internal Outfall 01A. The Permittee shall be required to conduct chronic toxicity testing if discharges from Internal Outfall 01A are known to occur during at least five (5) consecutive days. During the previous permit cycle the Permittee after demonstrating by monthly toxicity testing during the first year of permit term, that there was no chronic toxicity, requested a reduction in chronic toxicity testing in accordance with 40 CFR 122.62, by submitting a request for permit modification in writing to EPA Region 9. EPA Region 9 approved this reduced frequency of toxicity testing for the rest of the permit term. As the actual processes that contribute to discharges from Internal Outfall 01A are still basically the same as in the previous permit term, the renewed permit will require quarterly toxicity monitoring in the first year following the issuance of this permit, and then the Permittee may request a reduced frequency of toxicity testing and limitation on testing using the most sensitive species upon demonstrating that there is no reasonable potential for chronic toxicity from Outfall 01A.

IX. OTHER CONSIDERATIONS UNDER FEDERAL LAW

A. Impact to Threatened and Endangered Species

Section 7 of the Endangered Species Act (ESA) of 1973 requires federal agencies to ensure that any action authorized, funded, or carried out by a federal agency does not jeopardize the continued existence of a listed or candidate species, or result in the destruction or adverse modification of its habitat. A federal agency must consult with the relevant Service, either U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service, if it determines that an endangered or threatened species is present in the area affected by the federal action and that the implementation of such action will likely affect the species. ESA Section 7(a)(3).

To identify the endangered and threatened species that are present in the action area, EPA used the list generated for the Office of Surface Mining Reclamation and Enforcement (OSMRE) for the related but much broader proposed action related to the Four Corners Power Plant and Navajo Mine Energy project. This larger project includes the land and listed species relevant to EPA's permitting action. OSMRE obtained a list of species to be considered from FWS on January 23, 2014. A total of 39 species were identified as potentially occurring in the Action Area of the project which is much larger than, but overlaps the location of the Outfalls covered by this permit. A separate species list was obtained by EPA from FWS on September 2, 2014 for the limited area that is the subject of this EPA permitting action. Six threatened or endangered species were identified. These species are listed below:

Birds

- Southwestern willow flycatcher (*Empidonax traillii extimus*): Endangered
- Yellow-billed cuckoo (*Coccyzus americanus*): Proposed Threatened

Fish

- Colorado pikeminnow (*Ptychocheilus lucius*) Endangered,
- Razorback sucker (*Xyrauchen texanus*) Endangered

Plants

- Mancos milk-vetch (*Astragalus humillimus*) Endangered
- Mesa Verde cactus (*Sclerocactus mesae-verdae*) Threatened

Due to the overlap in the species and area affected by the OSMRE and EPA proposed actions, those agencies, the Permittee and the FWS agreed to consider all of the federal actions in a single ESA consultation.

In analyzing the impacts of this federal action on listed species, OSMRE and EPA are relying on the Biological Assessment that the OSMRE prepared for the broader OSMRE proposed action related to the Four Corners Power Plant and Navajo Mine Energy project. That Biological Assessment concludes, based on the cumulative impacts of the broader proposed project, that there will likely be adverse effects on the listed Colorado pikeminnow (*Ptychocheilus lucius*) and Razorback sucker (*Xyrauchen texanus*). As a signatory to the Biological Assessment, EPA anticipates that the FWS

will issue a final Biological Opinion, including an incidental take statement and recommended reasonable and prudent measures action agencies can take to avoid jeopardizing the continued existence of a listed or candidate species or destroying or adversely modifying critical habitat. EPA believes that appropriate implementation of that Biological Opinion, especially as to the impingement and entrainment impacts of EPA's NPDES permitting action, will allow EPA to attain compliance with its obligations under the ESA.

B. Impact to National Historic Properties

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effect of their undertakings on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. EPA used the analysis conducted by the Office of Surface Mining Reclamation and Enforcement (OSMRE) for the related by much broader Proposed Action related to the Four Corners Power Plant and Navajo Mine Energy project for which EPA is a signatory agency. Pursuant to the analysis conducted by OSMRE there are no projected disturbances related to construction activities from the reissuance of the NPDES permit. Therefore, pursuant to the NHPA and 36 CFR 800.3(a)(1), EPA is making a determination that issuing this proposed NPDES permit does not have the potential to affect any historic properties or cultural properties. As a result, Section 106 does not require EPA to undertake additional consulting on this permit issuance.

XI. STANDARD CONDITIONS

A. Reopener Provision

In accordance with 40 CFR 122 and 124, this permit may be modified by EPA to include effluent limits, monitoring, or other conditions to implement new regulations, including EPA-approved water quality standards; or to address new information indicating the presence of effluent toxicity or the reasonable potential for the discharge to cause or contribute to exceedances of water quality standards.

B. Standard Provisions

The permit requires the Permittee to comply with EPA Region 9 Standard Federal NPDES Permit Conditions, dated July 27, 2011.

XII. ADMINISTRATIVE INFORMATION

A. Public Notice (40 CFR 124.10)

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft NPDES permit or other significant action with respect to an NPDES permit or application.

B. Public Comment Period (40 CFR 124.10)

Notice of the draft permit will be placed in a daily or weekly newspaper within the area affected by the facility or activity, with a minimum of 60 days provided for interested parties to respond in writing to EPA. After the closing of the public comment period, EPA is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

C. Public Hearing (40 CFR 124.12(c))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if EPA determines there is a significant amount of interest expressed during the 60-day public comment period or when it is necessary to clarify the issues involved in the permit decision.

D. Water Quality Certification Requirements (40 CFR 124.53 and 124.54)

For States, Territories, or Tribes with EPA approved water quality standards, EPA is requesting certification from the affected State, Territory, or Tribe that the proposed permit will meet all applicable water quality standards. Certification under section 401 of the CWA shall be in writing and shall include the conditions necessary to assure compliance with referenced applicable provisions of sections 208(e), 301, 302, 303, 306, and 307 of the CWA and appropriate requirements of State, Territory or Tribal law.

XIII. CONTACT INFORMATION

Comments, submittals, and additional information relating to this proposal may be directed to:

U.S. Environmental Protection Agency, Region 9
NPDES Permits Section, Water Division (WTR-2-3)
Attn: Gary Sheth
Hawthorne Street
San Francisco, CA 94105
Telephone: (415) 972-3516 or email to sheth.gary@epa.gov

XIV. REFERENCES

APS 2005 and 2013 *NPDES Permit Reapplication and Supporting Documents*.

EPA. 1991. *Technical Support Document for Water Quality-based Toxics Control*. Office of Water, EPA. EPA/505/2-90-001.

EPA. 1996. *Regions IX & X Guidance for Implementing Whole Effluent Toxicity Testing Programs*, Interim Final, May 31, 1996.

EPA. 2002a. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms - Fifth Edition*. Office of Water, EPA. EPA-821-R-02-012.

EPA. 2010. *U.S. EPA NPDES Permit Writers' Manual*. Office of Water, EPA. EPA-833-K-10-001.

EPA 2012. *Compliance Evaluation Inspection Report for APS Corners Power Plant*. Final, August 9, 2012.

NNEPA Water Quality Program. 2008. *Navajo Nation Surface Water Quality Standards 2007*

OSMRE 2014. *Four Corners Power Plant and Navajo Mine Energy Project Biological Assessment*

USFWS 2014. *List of threatened and endangered species for the APS Four Corners Power Plant*. Consultation Tracking Number 02ENNM00-2014-SLI-0511.